

al. cannot be interpreted to contemplate recording data on its fuel injector since they only contemplate in-chassis control of a fuel injector based upon sensed behavior in one computation cycle. These arguments are further buttressed by several passages in Fischer et al. First, Fischer et al. does not even contemplate an electronically controlled fuel injector because he teaches at column 2 lines 6-11 that its control system triggers an injection timing device in a pump to adjust the start of pump delivery and hence the start of fuel injection. Thus, Fischer et al. only contemplates a pump and line fuel injection system. Furthermore, the only item that Fischer et al. discloses as having the ability to generate any data regarding individual injector performance is its needle motion sensor. However, in passages at column 2, lines 18-19 and column 5, line 54 it is clear that Fischer et al. only contemplates needing a single needle sensor that is mounted somewhere on the internal combustion engine, which inherently must be somewhere other than attached to a single injector if it is to perform for its intended purpose to gather data from all of the injectors in the engine. For these reasons, Applicants respectfully assert that Fischer et al. does not contemplate a corrective signal based upon data attached to the injector, which data is a function of measurements at a plurality of operating conditions, as required by Applicants' claims. Therefore, Applicants respectfully request that the outstanding rejections against claims 46-48 be withdrawn.

Claims 52-53 stand rejected under 35 USC §103(a) over Fischer et al. Applicants respectfully disagree for at least two reasons. First, nowhere does Fischer et al. contemplate Applicants' claimed step of reading data recorded on the apparatus that is indicative of a control signal adjustment. While Fischer et al. does contemplate an electronic control module that receives sensed injector needle impact data, that is

something other than reading recorded data off of an apparatus. This argument is further buttressed by the fact that Fischer et al. does not even contemplate a sensor associated with each fuel injector, and therefore does not even contemplate a sensor attached to each injector let alone a data recording attached to each injector, as would be required to properly reject Applicants' claims. Secondly, Applicants' claims require that control signal adjustment data be inputted to the electronic control module. Fischer et al. on the other hand only contemplates calculating a control signal adjustment within its electronic control module based upon raw data brought to the electronic control module from sensor(s). There should be no dispute that the raw sensor data received by the Fischer et al. electronic control module is meaningless until it is compared to something else. Thus, Applicants respectfully assert that the sensor data received by the Fischer et al. electronic control module cannot properly be characterized as control signal adjustment data as required by Applicants' claims. Thus, Applicants respectfully assert that no proper interpretation of Applicants' claim language could be rendered obvious by the real time feedback control system described by Fischer et al. Therefore, Applicants respectfully request that the outstanding §103(a) rejections against claims 52-53 be withdrawn.

Claims 57 and 58 stand rejected under 35 USC §103(a) over Fischer et al. in view of William K. Toboldt (Diesel Fundamentals, Service and Repair). Applicants respectfully disagree on several grounds. First, it is clear from column 2, lines 6-11 of Fischer et al. that they do not contemplate a fuel injector that includes an electrical actuator. Instead, they only contemplate a pump and line fuel injection system in which pressurization by the pump is controlled electronically. Next, neither of